

Docket No. 000298C1

Serial No. 09/892,365

AMENDMENTS TO THE CLAIMS:

1. (Presently Amended) A method for wireless communication, comprising:
 - positioning a first plurality of slave transceivers within a region;
 - positioning a second plurality of slave transceivers within the region in positions spatially separated from the positions of the first plurality of slave transceivers;
 - receiving, at the first plurality and at the second plurality of slave transceivers, a reverse radio frequency (RF) signal generated by a mobile transceiver within the region, and generating respective first and second slave signals responsive thereto, wherein each of the first and second slave signals are representative of the reverse RF signal, and wherein the first slave signal is distinguishable from the second slave signal;
 - receiving, at a first master unit, the first slave signal, and generating a first master signal, representative of the reverse RF signal, responsive thereto;
 - receiving, at a second master unit, the second slave signal, and generating a second master signal, representative of the reverse RF signal, responsive thereto;
 - conveying the first and second slavemaster signals separately to a base station transceiver subsystem (BTS) external to the region; and
 - processing the first and second slavemaster signals conveyed to the BTS so as to recover information contained in the reverse RF signal generated within the region.
2. (Original) The method according claim 1, wherein the region is generally unable to receive signals transmitted over the air from the BTS.
3. (Presently Amended) The method according to claim 1, wherein conveying the first and second slavemaster signals separately to the BTS comprises orthogonally polarizing the first and second master signals.
4. (Presently Amended) The method according to claim 1,
 - wherein receiving at the first plurality and at the second plurality of slave transceivers the reverse RF signal generated by the mobile transceiver and generating respective first and second slave signals comprises:

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down-converting the reverse RF signal so as to generate respective first and second intermediate frequency (IF) signals, representative of the respective first and second slave signals, and wherein conveying the first and second slave signals separately to the BTS comprises up-converting the respective IF signals in a master unit to recover the first and second slave signals

wherein receiving, at a first master unit, the first slave signal and generating the first master signal comprises:

up converting, at the first master unit, the first IF signal to generate the first master signal, and

wherein receiving at a second master unit the second slave signal and generating the second master signal comprises:

up converting, at the second master unit, the second IF signal to generate the second master signal.

5. (Presently Amended) The method according to claim 1, and comprising:

generating by the BTSeconveying a forward RF signal from the BTS to a master unit;

down-converting the forward RF signal to a forward IF signal;
splitting the forward IF signal into a first and a second IF signal;
delaying the second IF signal to generate a delayed second IF signal;
conveying the first and delayed second IF signals to the first and second plurality of slave transceivers, respectively;

processing the first and delayed second IF signals by the the first and second plurality of slave transceivers, respectively, to recover the forward RF signal and a delayed forward RF signal, respectively; and

transmitting the forward RF signal and the delayed forward RF signal, by the the first and second plurality of slave transceivers, respectively, to the mobile transceiver.

6. (Presently Amended) Apparatus for wireless communication, comprising:

a first plurality of slave transceivers and a second plurality of slave transceivers, which first and second pluralities are spatially separated from one

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another within a region, and which first and second pluralities of slave transceivers are adapted to receive a radio frequency (RF) signal generated by a mobile transceiver within the region, and to generate respective first and second slave signals responsive to receiving the RF signal, wherein each of the first and second slave signals are representative of the RF signal, and wherein the first slave signal is distinguishable from the second slave signal;

a first master unit, which receives and processes the first slave signal from the first plurality of slave transceivers to generate a first master signal, representative of the RF signal, and conveys the processed first master signal to a base station transceiver subsystem (BTS); and

a second master unit, which receives and processes the second slave signal from the second plurality of slave transceivers to generate a second master signal, representative of the RF signal, and conveys the processed second master signal to the BTS separately from the processed first master signal, such that information contained in the RF signal is recovered by processing the first and second processedmaster signals separately received by the BTS.

7. (Original) The apparatus according claim 6, wherein the region is generally unable to receive signals transmitted over the air from the BTS.

8. (Presently Amended) The apparatus according claim 6, and comprising a polarizing antenna coupled to the first and second master units, which antenna conveys the processed first master signal and the processed second master signal separately to the BTS as orthogonally polarized signals.

9. (Presently Amended) The apparatus according claim 6, wherein the first and second plurality of slave transceivers comprise respective first and second down-converters which downconvert the RF signal to generate the first and second slave signals as respective first and second intermediate frequency (IF) signals, representative of the respective first and second slave signals, wherein the first master unit comprises a first up-converter which receives the processed first signal fromupconverts the first IF signal to generate the first master signal, and wherein the

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second master unit comprises a second up-converter which ~~receives the processed second signal from~~ ~~upconverts~~ the second IF signal to generate the second master signal.

10. (Presently Amended) The apparatus according claim 6, wherein the first master unit comprises:

a down-converter which converts a forward RF signal received from the BTS to a forward IF signal; and

a splitter which splits the forward IF signal into a first and a second forward IF signal,

wherein the second master unit comprises a delay unit which delays the second forward IF signal to generate a delayed second forward IF signal.

wherein the first plurality of slave transceivers comprise respective pluralities of up-converters which recover the forward RF signal from the first forward IF signal, and comprise respective pluralities of transmitters which transmit the forward RF signal to the mobile transceiver, and

wherein the second plurality of slave transceivers comprise respective pluralities of up-converters which recover a delayed forward RF signal from the delayed second forward IF signal, and comprise respective pluralities of transmitters which transmit the delayed forward RF signal to the mobile transceiver.